provides an excellent LC. However, despite good local control we observed a crude distant metastasis rate of 25% in N2 disease, suggesting a need for novel chemotherapeutic approaches to improve systemic control in these patients. OS was significantly influenced by T staging (p=0.035), suggesting the need for dose escalation in patients with higher T-stage (cT3-T4). Therefore, further studies are warranted to evaluate if dose escalation to both gross tumor and areas of potential nodal spread can improve LC and OS.

EP-1210

Treatment and outcomes with intra-luminal oesophageal brachytherapy at the Leeds Cancer Centre from 2010 to 2014

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Purpose/Objective: Intra luminal brachytherapy (ILBT) is utilised for oesophageal cancer as a palliative treatment with the aim to improve and maintain patients' swallowing function and delaying or avoiding the need for an endoluminal oesophageal stent. It is utilised as a boost treatment following external beam radiotherapy in patients' deemed unsuitable for definitive chemoradiation or high dose external beam treatments; or as salvage treatment for those with relapsed disease more than 6 months from external beam treatment.Treatment was delivered either as a single 8Gy dose to the PTV or 14-16 Gy in 2 fractions a maximum of 1 week apart. In this retrospective analysis, we evaluate the outcomes of patients treated with ILBT in West Yorkshire over a 4 year period.
Materials and Methods: Information collected from entries in the Leeds oesophageal brachytherapy database and patient pathway manager (clinical data software). Data on basic patient/tumour demographics, date of treatment, dose/fractionation schedule of treatment, brachytherapy dosimetric data, toxicity profile, swallowing assessment before and after treatment and date of subsequent oesophageal stent (if needed) was reviewed.
All ILBT treatments were 3D CT conformal planned
Results: A total of 33 patients have been treated between April 2010 and August 2014. The median performance status was one. 21patients (64%) patients had a single treatment. Most treatments (76 %) were given as boost following 30Gy in 10 fractions of external beam radiotherapy. 27% of patients required subsequent oesophageal stent insertion for palliation of critical dysphagia. The median overall survival was 211 days whilst the median stent free survival was 204 days. 6% of patients had documented grade 3 RTOG toxicity, related to dysphagia. There were no treatment related bleeding or perforation events. The median PTV volume was 38.3cm3 with the median maximum diameter for each PTV 38.0mm. Mean PTV V100 was 81.9%(+/-15.2%, 1SD), and V200 of 38.1%(+/- 13.2%, 1SD). Mean PTV D90 was 6.4Gy(+/- 1.5Gy, 1SD) and Mean GTV D90 was 7.2Gy(+/- 1.3%, 1SD) for each fraction. The spinal cord mean D2cc (maximum dose for 2cc volume of spinal cord) was 1.1Gy(+/- 0.5Gy, 1SD) whilst the mean D0.1cc was 1. 5Gy(+/- 0.6Gy, 1Sd).
Conclusions: Intra luminal oesophageal brachytherapy is a safe and effective method of delivering palliative radiotherapy for patients with oesophageal cancer where other radical treatments are deemed inappropriate. It is well tolerated and can delay or eliminate the need for oesophageal stents for symptomatic dysphagia. Further study in to the role of using sequential ILBT with removable stents to maintain swallowing function is required.

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A systematic review of novel neoadjuvant treatment intensification of locally advanced rectal cancer

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Purpose/Objective: Standard treatment for locally advanced rectal cancer is neoadjuvant fluoropyrimidine-based chemoradiotherapy (CRT) followed by total mesorectal excision. Research has been focused on intensifying neoadjuvant treatment. This systematic review evaluated Phase II treatment intensification trials.
Materials and Methods: A systematic search of the PubMed, EMBASE, MEDLINE and the Cochrane Library databases was performed from January 2004 to September 2014 for all published Phase II trials of neoadjuvant treatment intensification in locally advanced rectal cancer. Eighty-one eligible Phase II trials were identified from 474 articles. For each trial, clinical, methodological and statistical components were assessed.
Results: Ninety-one experimental arms from 81 trials were identified. Median number of patients recruited per trial was 50 (range: 8–279) over a median recruitment period of 26 months (range: 4–108). Eighty-three arms studied CRT intensification: 36(36.6%) additional cytotoxic, 10(11.0%) additional biological agent, 3(3.3%) additional radiosensitiser, 16(17.6%) radiotherapy dose intensification, and 18(19.8%) a combination of agents. Neoadjuvant chemotherapy was added in 22 experimental arms (14 arms alongside CRT intensification): 7(7.7%) additional cytotoxic, 1(1.1%) additional biological agent and 6(6.6%) a combination of agents.
Only nine trials were randomised of which five had a standard control arm. Twenty studies did not report a sample size calculation and only 44(54.3%) studies stated their statistical trial design. Fifteen differently defined primary endpoints were stated in 73 studies. Seventy-six trials recruited both AJCC stage II and III disease. MRI local staging was mandated in 35 trials while the circumferential resection margin was assessed in only 10 trials. Only 31 of the 81 studies were rated to have a good overall statistical design and compliance. No meta-analysis could be performed due to trial heterogeneity.
Conclusions: The very small number of randomised phase II trials, the lack of agreement regarding useful primary end points and the poor clinical trial design quality are major concerns. These factors are likely to be a major contributor